



★ VIRGINIA ★
DEPARTMENT *of* ELECTIONS

the Handbook

Chapter 4

Voting Equipment

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4. Voting Equipment

REQUIRED FORMS Voting Equipment Testing and Preparation Form – ELECT 633	ADDITIONAL RESOURCES EAC's Logic and Accuracy Testing ELECT Voting System Resource Pre-Election Logic and Accuracy Testing and Post-Election Audit Initiative
REFERENCES State Certification of Voting Systems Voting Systems Security Policy Map of Voting System Type by Locality	REGULATIONS IVAC20-60-50 Overfull Optical Ballot Scanner Container.

4.1 CHAPTER ORGANIZATION

The purpose of this chapter is to provide an overview of important aspects of voting equipment. §4.2 discusses the required state certification of voting systems used for elections in the Commonwealth. §4.3 provides information on voting equipment. §4.5 provides a brief outline to testing the equipment in the logic and accuracy testing each locality must complete prior to election day. §4.6 discusses voting equipment security and audits. Lastly, §4.7 outlines certain aspects FOIA that the local electoral board and general registrar should consider surrounding the security of voting systems.

4.2 STATE CERTIFICATION OF VOTING SYSTEMS

The State Board of Elections has established a voting system certification scheme that examines the vendors' voting systems and the ballots designed to be used with these systems.¹ All voting systems must be approved by the State Board prior to their use in an election and must be tested in an actual election in one or more counties or cities.² A governing body cannot adopt the use of any voting system and ballot that has not been approved by the State Board.

Modification to an existing voting system which has been previously certified will, in general, invalidate the results of the prior certification unless and until it can be determined by the State Board of Elections that the change does not affect the overall flow of program control or the manner in which ballots are interpreted and the vote data are processed. No change of any kind can be made to any voting system software or firmware unless the Department of Elections has been informed of the proposed change and determined whether or not it will require recertification of the system.

Should a previously approved voting system be shown to no longer comply with the standards adopted by the State Board or be shown to have critical software or hardware issues the Board, at its discretion, may decertify the voting system.³

In 2017, prior to the November general election, the State Board of Elections determined that Direct Recording Electronic (DRE) Systems no longer provided the security needed to ensure protection from third-party interference; thus, these systems were decertified and prohibited from use in any election taking place in the Commonwealth.

¹ See Code of Virginia §24.2-629.

² *Id.*

³ See Code of Virginia §24.2-629.



4.3 VOTING EQUIPMENT



An **optical ballot scanning machine** counts marks made on paper by the voter. The tool used to make these marks is called the marking device. A polling place typically needs one optical ballot scanning machine for proper voting operation with certain exceptions for presidential elections.⁴

All localities are required to use voting system at every precinct and for all elections held in the county, the city, or any part of the county or city as per Virginia Code §24.2-626. While choosing a voting and counting system is at the discretion of the local electoral board, the systems chosen must be from the Department of Election's approved vendor and system list.

Localities may also experiment with new voting systems in one or more precincts.⁵ A new system may be one that has already been certified for use by the Department of Elections, or it may be one that is still in the testing stage. In either case, the electoral board must have approval from the Department of Elections for experimental use of election equipment.⁶

4.3.1 Purchasing Equipment

The governing body of each county and city is responsible for purchasing the voting machines that have been approved by the State Board.⁷ For contracting purposes, the Department of Elections may negotiate a government rate for procuring machines; however, a local governing body is not required to use these contracts and should refer to local procurement procedures.

4.3.2 Number of Voting Machines Required



Each precinct is required to deploy a minimum number of ballot scanner machines based on the number of registered voters in the precinct.⁸ In determining the number of registered voters, absentee voters may be excluded.⁹ As previously mentioned, DREs are no longer permitted for use in elections in the Commonwealth. The number of ballot scanner machines required for an election is significantly lower than the required number for DREs previously set in code.

- Each precinct must have at least one scanner and one voting booth with a marking device for each 425 registered voters.¹⁰
- During a presidential election, a precinct with more than 4,000 registered voters will be required to have two ballot scanning machines. This requirement may change if the governing body of the county or city, in consultation with the general registrar and local electoral board, determines a second ballot scanning machine is unnecessary.¹¹

⁴ See Code of Virginia, §24.2-627.

⁵ See Code of Virginia §24.2-630.

⁶ See Code of Virginia §24.2-630.

⁷ See Code of Virginia §24.2-626.

⁸ See Code of Virginia §24.2-627.

⁹ *Id.*

¹⁰ See Code of Virginia §24.2-627.

¹¹ *Id.*



4.4 CUSTODIANS

The voting equipment custodian is an individual identified by the electoral board or the general registrar to oversee the programming, configuration and testing of voting systems in the locality.¹² The custodian programs and prepares voting and counting equipment and is charged with overseeing and instructing the vendor technician in programming, testing, calibrating, and delivery of the equipment.¹³

The electoral board and general registrar are responsible for choosing a custodian and are required to appoint an individual to this position at least 30 days before each election. Any individual within this position must sign an oath prior to taking the position.¹⁴

The electoral board may assign a board member or assistant registrar to serve without pay as a custodian; however, if the presence of a board member and the custodian is required, the same individual is prohibited from serving in both positions.¹⁵

With the approval of the Department of Elections, the electoral board or general registrar may contract with the voting equipment vendor or another contractor for the purpose of programming, preparing and maintaining the voting equipment. The voting equipment custodians shall instruct and supervise the vendor or contractor technicians and oversee the programming, testing, calibrating and delivering of the equipment. The vendor or contractor technicians shall be sworn to perform their duties honestly and faithfully.¹⁶

4.5 LOGIC AND ACCURACY TESTING

Logic and accuracy testing is an integral part of preparing for an election. Each machine (not a sampling of machines) that will be used in an election must be tested prior to that election to ensure it has been programmed correctly and is functioning properly. The logic and accuracy test will also uncover any ballot printing or coding issues that may affect accurate and complete tabulation.

Before the logic and accuracy testing of voting machines for any election, the general registrar must provide a written notice to the chairman of the local committee of each political party, or for an election in which no candidate is a party nominee and which is held when no other election having party nominees is being conducted, to the candidates.¹⁷

The notice must provide the time and place where the machine will be tested and state that the political party or candidate receiving the notice may have one representative present while the equipment is tested. The representatives must be given an opportunity to see that the

¹² See Code of Virginia §24.2-632.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ See Code of Virginia §24.2-633.



equipment is in proper condition for use at the election and that machines are properly sealed after testing.¹⁸

Each machine should be tested with a sufficient number of ballots or votes to substantiate that each machine recorded the correct number of votes for each candidate. An electoral board member, general registrar, or a designated representative, must be present during this process and must certify the results from each machine.¹⁹ A representative should be used only if it is impracticable for a board member or the general registrar to be present.²⁰ This representative cannot be the custodian or a vendor or contractor technician who was responsible for programming the ballot software, electronic activation devices, or electronic storage media.

Form ELECT-633 must be submitted electronically to the Department of Elections after logic and accuracy testing is complete.

F.A.Q

Can a candidate or her representative request to attend the L&A testing?

Yes. The general registrar of each locality may exercise discretion in considering whether to grant a candidate's request to attend the testing. If the general registrar permits the requesting candidate to attend the testing, she must, as soon as reasonably possible, contact all other candidates for that office to provide an equal opportunity.

Can a general registrar proactively provide notice of the L&A testing to all candidates?

The general registrar must provide equal notice to all candidates or their representatives if they choose to do this. For example, a general registrar should not provide notice to some candidates by telephone, and notice by mail to others.

4.6 VOTING EQUIPMENT SECURITY

The electoral board or the general registrar of each locality must develop and annually update written plans and procedures to ensure the security and integrity of its electronic voting system.²¹ The local electoral board is responsible for the security of all voting systems, including electronic pollbooks. The State requires each locality to develop a written security plan and review the plan annually.

4.6.1 Voting System Audit



In the 2017 legislative session, the General Assembly passed SB 1254 which will require the Department of Elections to coordinate a post-election risk-limiting audit which will be performed by the localities. The purpose of the audit to study the accuracy of ballot scanner machines.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ See Code of Virginia §24.2-632. See [2006 Va. Atty. Gen. Op. \(9.15.06 to Jensen\)](#) (“practicable” means “reasonably capable of being accomplished; feasible”).

²¹ See Code of Virginia §24.2-625.1.



This audit will be conducted annually by a certain number of localities chosen at random with every locality having performed the audit within five years. The Department of Elections will coordinate and establish procedures relating to the audit. The local electoral board will be required to submit the results of the audit to the Department. The Department will be required to submit a report to the State Board detailing the results of the audited election results and analysis of any detected discrepancies. This bill, enacted as Va. Code §24.2-671.1, will be effective July 1, 2018.

4.7 VIRGINIA FREEDOM OF INFORMATION ACT (FOIA) CONSIDERATIONS

There are limited exemptions from VFOIA public meeting and records disclosure requirements for voting equipment security issues.

For reference, please be aware that “records of the Department of Elections or of a local electoral board, to the extent such records describe protocols for maintaining the security of ballots or voting and counting equipment, or reveal the results of risk assessments of specific local electoral procedures, the release of which would compromise the security of any election, shall be confidential and excluded from inspection and copying under the Virginia Freedom of Information Act (FOIA).”²²

An electoral board of the State Board of Elections may close a meeting to discuss security protocols and conduct security compliance site visits preceded and followed by open meetings about the visits.²³ Records describing security protocols or specific risk assessments that could compromise election security if released are exempt from disclosure.

²² See Code of Virginia §24.2-625.1.

²³ *Id.*

